

What is claimed is:

1. An images combination processing system for executing combination processing of split images, comprising:

split-image compressing means for compressing image data of each area out of a plurality of areas into which a
5 picked-up image is split;

restart marker inserting means for inserting plural types of restart markers into compressed data, which are compressed by the split-image compressing means, from a head of the compressed data in a circulatory order of the
10 plural types, and inserting a special restart marker into a rearmost portion of the compressed data;

data length counting means for counting a data length of the compressed data into which the restart markers and the special restart marker are inserted by the restart
15 marker inserting means;

compressed data storing means for storing the compressed data of each split image into which the restart markers are inserted;

special restart marker detecting means for detecting
20 the special restart marker from areas in the compressed data storing means, which are identified based on the data length counted by the data length counting means; and

restart marker replacing means for reading compressed

data that extend from the restart marker, which is inserted into the head of the compressed data, to the special restart marker from the compressed data storing means to replace the special restart marker with a last restart
5 marker contained in the restart markers,

wherein the split-image compressing means, the restart marker inserting means, and the data length counting means execute each process for each split image of the picked-up image, and

10 the special restart marker detecting means and the restart marker replacing means execute each process for all split images of the picked-up image.

2. The images combination processing system according to
15 claim 1, further comprising:

header attaching means for attaching a header which includes information indicating the data length counted by the data length counting means, and information indicating an area of the picked-up image, where the split-image of
20 the compressed data positions, to the compressed data into which the restart markers and the special restart marker are inserted by the restart marker inserting means; and

reading-order deciding means for deciding a reading order of the compressed data by the restart marker
25 replacing means, with reference to headers attached to the

compressed data of each split image that are stored in the compressed data storing means.

3. The images combination processing system according to
5 claim 1, wherein the split-image compressing means executes a compression based on a JPEG system.

4. An imaging device comprising:

image picking-up means for picking up an image;

10 split-image compressing means for compressing image data of each area out of a plurality of areas into which a picked-up image is split;

restart marker inserting means for inserting plural types of restart markers into compressed data, which are
15 compressed by the split-image compressing means, from a head of the compressed data in a circulatory order of the plural types, and inserting a special restart marker into a rearmost portion of the compressed data;

data length counting means for counting a data length
20 of the compressed data into which the restart markers and the special restart marker are inserted by the restart marker inserting means;

compressed data storing means for storing the compressed data of each split image into which the restart
25 markers are inserted;

special restart marker detecting means for detecting the special restart marker from areas in the compressed data storing means, which are identified based on the data length counted by the data length counting means; and

5 restart marker replacing means for reading compressed data that extend from the restart marker, which is inserted into the head of the compressed data, to the special restart marker from the compressed data storing means to replace the special restart marker with a last restart
10 marker contained in the restart markers,

wherein the split-image compressing means, the restart marker inserting means, and the data length counting means execute each process for each split image of the picked-up image, and

15 the special restart marker detecting means and the restart marker replacing means execute each process for all split images of the picked-up image.

5. An images combination processing method of executing
20 combination processing of split images, comprising:

a split-image compressing step of compressing image data of each area out of a plurality of areas into which a picked-up image is split;

a restart marker inserting step of inserting plural
25 types of restart markers into compressed data, which are

compressed by the split-image compressing step, from a head of the compressed data in a circulatory order of the plural types, and inserting a special restart marker into a rearmost portion of the compressed data;

5 a data-length counting step of counting a data length of the compressed data into which the restart markers and the special restart marker are inserted by the restart marker inserting step;

10 a compressed data storing step of storing the compressed data of each split image, into which the restart markers are inserted, in compressed data storing means;

15 a special restart marker detecting step of detecting the special restart marker from areas in the compressed data storing means, which are identified based on the data length counted by the data-length counting step; and

20 a restart marker replacing step of reading compressed data that extend from the restart marker, which is inserted into the head of the compressed data, to the special restart marker from the compressed data storing means to replace the special restart marker with a last restart marker contained in the restart markers,

25 wherein the split-image compressing step, the restart marker inserting step, and the data-length counting step execute each process for each split image of the picked-up image, and

the special restart marker detecting step and the restart marker replacing step execute each process for all split images of the picked-up image.

- 5 6. The images combination processing method according to claim 5, further comprising:

a header attaching step of attaching a header which includes information indicating the data length counted by the data-length counting step, and information indicating
10 an area of the picked-up image, where the split-image of the compressed data positions, to the compressed data into which the restart markers and the special restart marker are inserted by the restart marker inserting step; and

a reading-order deciding step of deciding a reading
15 order of the compressed data by the restart marker replacing step, with reference to headers attached to the compressed data of each split image that are stored in the compressed data storing means.

- 20 7. The images combination processing method according to claim 5, wherein the split-image compressing step executes a compression based on a JPEG system.

8. An images combination processing program for
25 executing the images combination processing method

according to claim 5 by a computer.

9. An images combination processing system for executing combination processing of partial images that constitutes a picked-up image, comprising:

partial image compressing means for compressing image data of the partial images;

restart marker inserting means for inserting plural types of restart markers into compressed data, which are compressed by the partial image compressing means, from a head of the compressed data in a circulatory order of the plural types, and inserting a special restart marker into a rearmost portion of the compressed data;

data length counting means for counting a data length of the compressed data into which the restart markers and the special restart marker are inserted by the restart marker inserting means;

compressed data storing means for storing the compressed data of each partial image into which the restart markers are inserted;

special restart marker detecting means for detecting the special restart marker from areas in the compressed data storing means that are identified based on the data length counted by the data length counting means; and

restart marker replacing means for reading compressed

data that extend from the restart marker, which is inserted into the head of the compressed data, to the special restart marker from the compressed data storing means to replace the special restart marker with a last restart
5 marker contained in the restart markers,

wherein the partial image compressing means, the restart marker inserting means, and the data length counting means execute each process for each partial image constituting the picked-up image, and

10 the special restart marker detecting means and the restart marker replacing means execute each process for all partial images constituting the picked-up image.

10. The images combination processing system according to
15 claim 9, further comprising:

header attaching means for attaching a header which includes information indicating the data length counted by the data length counting means, and information indicating an area of the picked-up image, where the partial image of
20 the compressed data positions, to the compressed data into which the restart markers and the special restart marker are inserted by the restart marker inserting means; and

reading order deciding means for deciding an reading order of the compressed data by the restart marker
25 replacing means, with reference to the header attached to

the compressed data of each partial image that are stored in the compressed data storing means.

11. The images combination processing system according to claim 9, wherein the partial image compressing means executes a compression based on a JPEG system.

12. An imaging device comprising:

an imaging element including a plurality of imaging means which pick up partial images;

partial image compressing means for compressing image data of the partial images;

restart marker inserting means for inserting plural types of restart markers into compressed data, which are compressed by the partial image compressing means, from a head of the compressed data in a circulatory order of the plural types, and inserting a special restart marker into a rearmost portion of the compressed data;

data length counting means for counting a data length of the compressed data into which the restart markers and the special restart marker are inserted by the restart marker inserting means;

compressed data storing means for storing the compressed data of each partial image into which the restart markers are inserted;

special restart marker detecting means for detecting the special restart marker from areas in the compressed data storing means that are identified based on the data length counted by the data length counting means; and

5 restart marker replacing means for reading compressed data that extend from the restart marker, which is inserted into the head of the compressed data, to the special restart marker from the compressed data storing means to replace the special restart marker with a last restart
10 marker contained in the restart markers,

wherein the partial image compressing means, the restart marker inserting means, and the data length counting means execute each process for each partial image constituting the picked-up image, and

15 the special restart marker detecting means and the restart marker replacing means execute each process for all partial images constituting the picked-up image.

13. An images combination processing method of executing
20 a combining processing of partial images that constitutes a picked-up image, comprising:

a partial image compressing step of compressing image data of the partial images;

a restart marker inserting step of inserting plural
25 types of restart markers into compressed data, which are

compressed by the partial image compressing step, from a head of the compressed data in a circulatory order of the plural types, and inserting a special restart marker into a rearmost portion of the compressed data;

5 a data length counting step of counting a data length of the compressed data into which the restart markers and the special restart marker are inserted by the restart marker inserting step;

10 a compressed data storing step of storing the compressed data of each partial image, into which the restart markers are inserted, in compressed data storing means;

15 a special restart marker detecting step of detecting the special restart marker from areas in the compressed data storing means that are identified based on the data length counted by the data length counting step; and

20 a restart marker replacing step of reading compressed data that extend from the restart marker, which is inserted into the head of the compressed data, to the special restart marker from the compressed data storing step to replace the special restart marker with a last restart marker contained in the restart markers,

25 wherein the partial image compressing step, the restart marker inserting step, and the data length counting step execute each process for each partial image

constituting the picked-up image, and

the special restart marker detecting step and the restart marker replacing step execute each process for all partial images constituting the picked-up image.

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14. The images combination processing method according to claim 13, further comprising:

a header attaching step of attaching a header which includes information indicating the data length counted by the data length counting step, and information indicating an area of the picked-up image, where the partial image of the compressed data positions, to the compressed data into which the restart markers and the special restart marker are inserted by the restart marker inserting step; and

15 a reading order deciding step of deciding an reading order of the compressed data by the restart marker replacing step, with reference to the header attached to the compressed data of each partial image that are stored in the compressed data storing step.

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15. The images combination processing method according to claim 13, wherein the partial image compressing step executes a compression based on a JPEG system.

25 16. An images combination processing program for

executing the images combination processing method according to claim 13 by a computer.

17. An images combination processing system for executing
5 combination processing of split images, comprising:

split-image compressing portion which compresses image data of each area out of a plurality of areas into which a picked-up image is split;

restart marker inserting portion which inserts plural
10 types of restart markers into compressed data, which are compressed by the split-image compressing portion, from a head of the compressed data in a circulatory order of the plural types, and inserting a special restart marker into a rearmost portion of the compressed data;

15 data length counting portion which counts a data length of the compressed data into which the restart markers and the special restart marker are inserted by the restart marker inserting portion;

compressed data storing portion which stores the
20 compressed data of each split image into which the restart markers are inserted;

special restart marker detecting portion which detects the special restart marker from areas in the compressed data storing portion, which are identified based
25 on the data length counted by the data length counting

portion; and

restart marker replacing portion which reads compressed data that extend from the restart marker, which is inserted into the head of the compressed data, to the
5 special restart marker from the compressed data storing portion to replace the special restart marker with a last restart marker contained in the restart markers,

wherein the split-image compressing portion, the restart marker inserting portion, and the data length
10 counting portion execute each process for each split image of the picked-up image, and

the special restart marker detecting portion and the restart marker replacing portion execute each process for all split images of the picked-up image.

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18. The images combination processing system according to claim 17, further comprising:

header attaching portion which attaches a header which includes information indicating the data length
20 counted by the data length counting portion, and information indicating an area of the picked-up image, where the split-image of the compressed data positions, to the compressed data into which the restart markers and the special restart marker are inserted by the restart marker
25 inserting portion; and

reading-order deciding portion which decides a reading order of the compressed data by the restart marker replacing portion, with reference to headers attached to the compressed data of each split image that are stored in
5 the compressed data storing portion.

19. The images combination processing system according to claim 17, wherein the split-image compressing portion executes a compression based on a JPEG system.
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20. An images combination processing system for executing combination processing of partial images that constitutes a picked-up image, comprising:

partial image compressing portion which compresses
15 image data of the partial images;

restart marker inserting portion which inserts plural types of restart markers into compressed data, which are compressed by the partial image compressing portion, from a head of the compressed data in a circulatory order of the
20 plural types, and inserting a special restart marker into a rearmost portion of the compressed data;

data length counting portion which counts a data length of the compressed data into which the restart markers and the special restart marker are inserted by the
25 restart marker inserting portion;

compressed data storing portion which stores the compressed data of each partial image into which the restart markers are inserted;

5 special restart marker detecting portion for detecting the special restart marker from areas in the compressed data storing portion that are identified based on the data length counted by the data length counting portion; and

restart marker replacing portion which reads
10 compressed data that extend from the restart marker, which is inserted into the head of the compressed data, to the special restart marker from the compressed data storing portion to replace the special restart marker with a last restart marker contained in the restart markers,

15 wherein the partial image compressing portion, the restart marker inserting portion, and the data length counting portion execute each process for each partial image constituting the picked-up image, and

the special restart marker detecting portion and the
20 restart marker replacing portion execute each process for all partial images constituting the picked-up image.

21. The images combination processing system according to claim 20, further comprising:

25 header attaching portion which attaches a header

which includes information indicating the data length counted by the data length counting portion, and information indicating an area of the picked-up image, where the partial image of the compressed data positions, to the compressed data into which the restart markers and the special restart marker are inserted by the restart marker inserting portion; and

reading order deciding portion which decides an reading order of the compressed data by the restart marker replacing portion, with reference to the header attached to the compressed data of each partial image that are stored in the compressed data storing portion.

22. The images combination processing system according to claim 20, wherein the partial image compressing portion executes a compression based on a JPEG system.